

PHOTOGRAPHIC INTERPRETATION REPORT



PETROPAVLOVSK-
KAMCHATSKIY
SINGLE HEXADIC ARRAY
FACILITY (POSSIBLY SNEDS
ASSOCIATED)
USSR



25X1

FEBRUARY 1968

COPY 116

4 PAGES

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Declass Review by NIMA/DOD

GROUP 1 EXCLUDED FROM
AUTOMATIC DOWNGRADING
AND DECLASSIFICATION

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PETROPAVLOSK-KAMCHATSKIY SINGLE HEXADIC ARRAY FACILITY (POSSIBLY SNEDS ASSOCIATED) USSR

INTRODUCTION

The Petropavlovsk-Kamchatskiy Single Hexadic Array is the fifth facility of this type identified to date in the USSR. The 4 other identified facilities were previously reported 1/ and all 5 are possibly associated with the Soviet Nuclear Energy Detection System (SNEDS). The hexadic arrays may be components of the SNEDS outstation signature. The function of the hexadic arrays is not fully understood; however, they may have both a natural and a nuclear event detection capability. A more complete description of the SNEDS has been previously published. 1/

PETROPAVLOVSK-KAMCHATSKIY SINGLE HEXADIC ARRAY FACILITY

The single hexadic array facility is 6 nautical miles (nm) east-northeast of Petropavlovsk-Kamchatskiy at 53-04-20N 158-51-00E. The facility consists of a single hexadic array with 4 longer radials which have an average cross-leg diameter [] and 2 shorter radials. Six instrumentation positions, each with an object of undetermined dimensions, are at the end of each radial. Each radial appears as a cable scar.

Adjacent to the hexadic array is a small secured instrumentation control area which contains an instrumentation control building and a small support building. Two masts and numerous small objects of unidentified function are also within the security fence of the instrumentation control area. Together, they suggest the presence of additional instrumentation.

One signature item common to this facility and several of the other hexadic array facilities previously reported is the apron approximately

[] of undetermined function. 25X1D

However, this particular apron is semicircular and those previously identified were all circular. A small piece of equipment which does not exhibit significant relief can be observed at the center of the semicircular apron. A second feature not observed at the other facilities is a small piece of probable instrumentation equipment which is positioned in the northeast corner of the secured instrumentation control area. This equipment includes a structure [] with an adjacent pattern of 6 small objects of undetermined size which are arranged radially about a seventh object. This pattern has a mean radial diameter of 10 feet. 25X1D

Support and Housing Area

A support and housing area is approximately 1,500 feet northwest of the hexadic array. The physical boundaries of the support and housing area are rather indefinite since a SAM support area and an SA-3 SAM assembly facility are in the same vicinity. It would appear that the support and housing area contains at least 25 buildings of various function.

Associated Communications Facility

A small high-frequency (HIF) communications antenna field is approximately 1,000 feet north-northeast of the support and housing area. The facility contains a control building and an unresolved number of HIF antennas. The exact number, type, and orientation is undetermined due to photographic interpretation being limited by low sun angle and vegetation. However, the antenna pattern suggests double rhombic antennas. An HIF/direction finding (DF) KRUG facility and support area are 1.5 nm southeast of the hexadic

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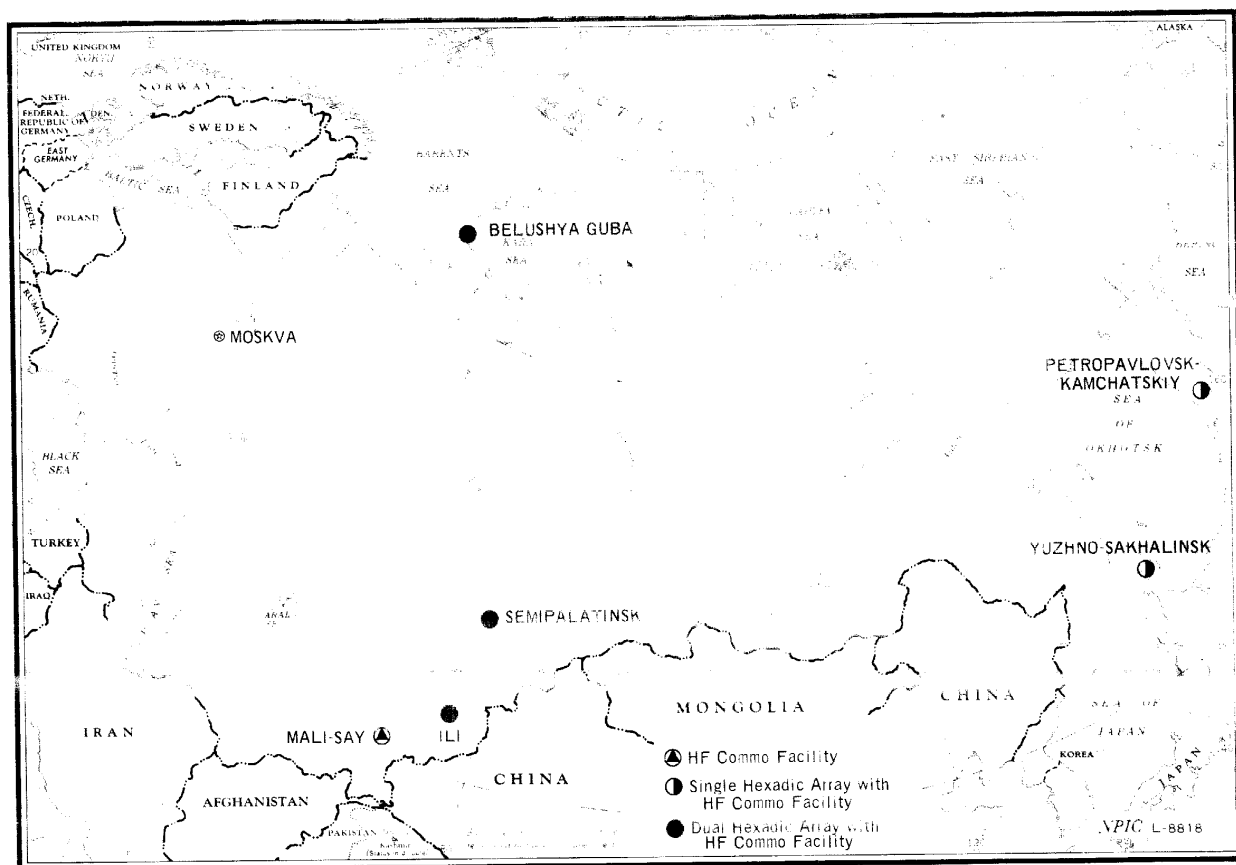


FIGURE 1 LOCATION OF HEXADIC ARRAY FACILITIES POSSIBLY ASSOCIATED WITH THE SOVIET NUCLEAR ENERGY DETECTION SYSTEM.

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array. At least two 3-2-2-3 fishbone antennas, orientation undetermined due to photographic interpretability limited by low sun angle and vegetation, and numerous masts are adjacent to the HF/DF KRUG support area.

Negation Information

The hexadic array facility cannot be negated on available [] photography. The facility can be first observed on [] Mission [] However,

snow and haze preclude detailed interpretation of the facility. Subsequent photographic coverage does not indicate any significant changes in the facility since [] photography.

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No correlation of this possibly SNEDS-associated facility with any other known electronic facility in the area can be ascertained from available photography other than the connection by road to a KRUG antenna facility 1.5 nm southeast which has been previously reported. 2/

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REFERENCES

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MAPS OR CHARTS

1. NPIC. [] *Hexadic Array Facilities Possibly Associated With the Soviet Nuclear Energy Detection System*, Jul 67 (TOP SECRET [])
2. NPIC. [] *Petrovsk KRUG Antenna Facility I, USSR*, Oct 65 (TOP SECRET [])

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REQUIREMENT

NSA/SOC/R65-68

NPIC PROJECT

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